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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,588	04/16/2004	Hirofumi Suzuki	299002057700	1755
25226 7590 12/18/2007 MORRISON & FOERSTER LLP 755 PAGE MILL RD PALO ALTO, CA 94304-1018			EXAMINER DANIELSEN, NATHAN ANDREW	
			ART UNIT 2627	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/826,588

Applicant(s)

SUZUKI, HIROFUMI

Examiner

Nathan Danielsen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 3 and 13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-12 and 14-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 October 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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**DETAILED ACTION**

1. Claims 1-18 are pending. Claims 3 and 13 are withdrawn pursuant to applicant's election of 17 April 2007.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 14, 15, 17, and 18 are rejected under 35 U.S.C. 103(a) as being obvious over Park et al (US Patent Application Publication 2003/0053394; hereinafter Park), in view of Morita et al (JP Patent Application Publication 02-066733; hereinafter Morita).

Regarding claim 1, Park discloses an optical pickup device, comprising:

a light source (element 40 in figure 9) for emitting light to an information recording medium;

a light detector including a plurality of light receiving portions (element 60 in figures 8 and 9), the light detector receiving light reflected by the information recording medium by the plurality of light receiving portions so as to detect information represented by the reflected light (¶ 59); and

a correction optical device section including a correction optical device for correcting a light path of the reflected light before the plurality of light receiving portions receive the reflected light (element 57 in figure 9), and a correction optical device control section for controlling the correction optical device (¶ 60).

However, Park fails to disclose where the correction optical device control section controls the correction optical device *in accordance with a ratio of a light spot received by the plurality of light receiving portions such that the ratio of the light spot received by the plurality of light receiving portions is returned to a prescribed value when deviated from the prescribed value.*

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In the same field of endeavor, Morita discloses where a push-pull offset (equivalent to the claimed ratio of a light spot) is corrected by rotating an optical element (element 12 in figures 6 and 7) such that the push-pull offset is canceled (abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the apparatus of Park with the functionality of the apparatus of Morita, for the purpose of properly aligning an optical beam on a photodetector (abstract).

Regarding claim 2, Park, in view of Morita, discloses everything claimed, as applied to claim 1. Additionally, Park discloses where the correction optical device section is located on a portion of a light path from the information recording medium to the plurality of light receiving portions, the portion not overlapping with a light path from the light source to the information recording medium (figure 9).

Regarding claim 14, Park, in view of Morita, discloses everything claimed, as applied to claim 1. Additionally, Park discloses where the optical pickup device further comprises an objective lens, located on a light path from the light source to the information recording medium, for converging the light emitted by the light source on a surface of the information recording medium (element 55 in figure 9).

Regarding claim 15, Park discloses a method for controlling an optical pickup device, comprising the steps of:

correcting a light path of light reflected by an information recording medium by a correction optical device (¶ 60); and

fixing the correction optical device which has corrected the light path of the reflected light (suggested by ¶ 63).

However, Park fails to disclose where the correction optical device control section controls the correction optical device *in accordance with a ratio of a light spot received by the plurality of light receiving portions such that the ratio of the light spot received by the plurality of light receiving portions is returned to a prescribed value when deviated from the prescribed value.*

In the same field of endeavor, Morita discloses where a push-pull offset (equivalent to the claimed ratio of a light spot) is corrected by rotating an optical element (element 12 in figures 6 and 7) such that the push-pull offset is canceled (abstract).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the apparatus of Park with the functionality of the apparatus of Morita, for the purpose of properly aligning an optical beam on a photodetector (abstract).

Regarding claim 17, Park, in view of Morita, discloses everything claimed, as applied to claim 15. Additionally, Park discloses step of locating the correction optical device on a portion of a light path from the information recording medium to the plurality of light receiving portions, the portion not overlapping with a light path from the light source to the information recording medium (inherent in the method of producing the optical system of figure 9).

Regarding claim 18, Park, in view of Morita, discloses everything claimed, as applied to claim 15. Additionally, Park discloses the step of adjusting a distance between an objective lens and a surface of the information recording medium, the objecting lens being located on a light path from the light source to the information recording medium, such that the light emitted by the light source is converged on the surface of the information recording medium before the step of correcting (§ 48).

4. Claims 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park, in view of Morita, and further in view of Imada et al (US Patent 5,404,344; hereinafter Imada).

Regarding claims 4-8, Park, in view of Morita, discloses everything claimed, as applied to claim 1. However, Park, in view of Morita, fails to disclose where the correction optical device includes a focusing error generation optical device for causing a focusing error to the reflected light.

In the same field of endeavor, Imada discloses where the optical pickup device further comprises a focusing error generation optical device, located on the optical path from the information recording medium to the plurality of light receiving portions, for causing a focusing error to the reflected light, wherein the focusing error generation optical device includes an astigmatism generation device/cylindrical lens for causing an astigmatism to the reflected light and the plurality of light receiving portions receive the reflected light to which the astigmatism is caused by the astigmatism generation device, and thus the light detector detects focusing error information representing the focusing error (element 7 in figure 1 and col. 2, lines 4-15).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the optical system of Park with that of Imada, for the purpose of obtaining a focus error using the astigmatism method (col. 2, lines 4-15) in order to accurately control the focus position of the light beam.

5. Claims 9-12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park, in view of Morita, and further in view of Itonaga (US Patent 5,623,466).

Regarding claim 9, Park, in view of Morita, discloses everything claimed, as applied to claim 1. However, Park, in view of Morita, fails to disclose where the correction optical device control section adjusts an angle of the correction optical device to correct the light path of the reflected light.

In the same field of endeavor, Itonaga discloses where the correction optical device control section adjusts an angle of the correction optical device to correct the light path of the reflected light (col. 5, lines 43-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the optical system of Park with that of Itonaga in order to compensate the tilt of the disc (col. 5, lines 43-50) and thereby to accurately control the position of the light focused on the disc.

Regarding claim 10, Park, in view of Morita and Itonaga discloses everything claimed, as applied to claim 9. However, Park, in view of Morita, fails to disclose where the correction optical device control section includes a location angle control section for controlling the angle of the correction optical device with respect to a horizontal direction.

In the same field of endeavor, Itonaga discloses where the correction optical device control section includes a location angle control section for controlling the angle of the correction optical device with respect to a horizontal direction (element 23 in figure 1 in combination with col. 5, lines 43-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the optical system of Park with that of Itonaga in order to compensate the tilt

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of the disc (col. 5, lines 43-50) and thereby to accurately control the position of the light focused on the disc.

Regarding claim 11, Park, in view of Morita and Itonaga, discloses everything claimed, as applied to claim 10. Additionally, Park discloses a control section for controlling the correction optical device driving section in accordance with the ratio of the light spot received by the plurality of light receiving portions (¶ 60; where the movement of element 57 implies a controller controlling the movement and where the controller would use a comparison of a light intensity received by element 60 with a threshold to determine the optimum position of element 57). However, Park, in view of Morita, fails to disclose where the location angle control section includes a correction optical device driving section for changing the angle of the correction optical device with respect to the horizontal direction.

In the same field of endeavor, Itonaga discloses where the location angle control section includes a correction optical device driving section for changing the angle of the correction optical device with respect to the horizontal direction (element 23 in figure 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the optical system of Park with that of Itonaga in order to compensate the tilt of the disc (col. 5, lines 43-50) thereby to accurately control the position of the light focused on the disc.

Regarding claim 12, Park, in view of Morita and Itonaga, discloses everything claimed, as applied to claim 11. However, Park, in view of Morita, fails to disclose the details of the actuator for tilting the correction optical device.

In the same field of endeavor, Itonaga discloses where the correction optical device driving section includes a coil member provided at an end of the correction optical device and a magnet member provided so as to face the coil member and where the control section controls an electric current to be supplied to the coil member to generate a magnetic force between the coil member and the magnet member, so as to control the correction optical device driving section to change the angle of the correction optical device with respect to the horizontal direction (inherent in the well-known construction of element 8 in figure 1 and col. 5, lines 43-50).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the optical system of Park with that of Itonaga in order to compensate the tilt of the disc (col. 5, lines 43-50) thereby to accurately control the position of the light focused on the disc.

Regarding claim 16, Park, in view of Morita, discloses everything claimed, as applied to claim 15. However, Park, in view of Morita, fails to disclose the step of correcting includes the step of adjusting an angle of the correction optical device with respect to a horizontal direction.

In the same field of endeavor, Itonaga discloses the step of correcting includes the step of adjusting an angle of the correction optical device with respect to a horizontal direction (inherent in the well-known construction of element 8 in figure 1 and col. 5, lines 43-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Park with that of Itonaga in order to compensate the tilt of the disc (col. 5, lines 43-50) thereby to accurately control the position of the light focused on the disc.

#### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1 and 15 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Closing Remarks/Comments***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of



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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Danielsen whose telephone number is (571) 272-4248. The examiner can normally be reached on Monday-Friday, 9:00 AM - 5:00 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nathan Danielsen  
12/13/2007

/William Korzuch/  
SPE, Art Unit 2627